

CLAIMS

1. Rotor assembly mounted to rotate around an axis of rotation X-X' and comprising two magnet wheels with claws (10) separated by an axial spacing and arranged opposite each other, each wheel (10) comprising a end shield (11) substantially perpendicular to the axis (X-X') and the claws (12) extending axially from the end shield (11) towards the other wheel (10), the end shield (11) of one of the magnet wheels comprising an axial face (111) opposite the other wheel while the claws (12) of one wheel (10) are attached to the end shield (11) by respective bases (121) mutually separated by peripheral spaces (13), the assembly comprising at least partly a fan (30) positioned on the axial face (111) of the end shield (11) of one of the wheels (10) opposite the other wheel (10), characterised in that part of this fan (30) axially seals at least partly one of the peripheral spaces (13).
2. Rotor assembly according to claim 1, characterised in that the fan (30) comprises a plate (31) approximately perpendicular to the axis (X-X') and attached to the end shield (11), and blades (32) protruding from the plate (31), and in that a so-called sealing part (311) of the plate (31) comes to seal axially at least one of the peripheral spaces (13).
3. Rotor assembly according to claim 2, characterised in that said sealing part (311) is axially inclined from the solid part (312) of the plate (31) at the side of the claws (12).
4. Rotor assembly according to claim 3, characterised in that said sealing part (311) of the plate (31) carries an axial relief (314, 321) extended from the plate (31) between the claws (12).
5. Rotor assembly according to claim 4, characterised in that the axial relief (314) is shaped so as to serve as a fixing clip for the fan (30) on the corresponding magnet wheel (10).

6. Rotor assembly according to claim 4, characterised in that the solid part (312) has a radially outer edge in which is hollowed out at least one recessed zone (318), the sealing part (311) extending from a base of the recessed zone (318).
- 5 7. Rotor assembly according to claim 6, characterised in that the fan (30) is moulded and comprises a blade (32) extending at least partly over the sealing part (311).
- 10 8. Rotor assembly according to claim 2, characterised in that the plate (31) of the fan (30) comprises a solid part (312) of approximately annular form and in that a zone of the solid part (312) constitutes the sealing part (311).
- 15 9. Rotor assembly according to claim 8, characterised in that the claws (12) have radially outer faces (123) defining the diameter of the rotor assembly, the solid part (312) having an external diameter equal to or less than the diameter of the rotor assembly.
- 20 10. Rotor assembly according to claim 2, characterised in that the plate (31) of the fan (30) comprises a solid part (312) of approximately annular form and in that the sealing part (311) of the plate (31) protrudes radially towards the outside from the solid part (312).
- 25 11. Rotor assembly according to claim 10, characterised in that the fan (30) is of folded sheet metal and in that the sealing part (311) of the plate (31) comprises a tab (321) protruding radially towards the outside from the solid part (312) of the plate (31) of the fan (30).
- 30 12. Assembly according to claim 11, characterised in that the tab (321) is inclined axially from the solid part at the side of the claws (12).
13. Rotor assembly according to claim 2, characterised in that the fan (30) is made of folded sheet metal and in that the plate (31) of the fan (30) comprises support parts (320) for the blades (32) cut out of the periphery of the plate (31), one of the support parts (320) constituting the sealing part (311).

14. Rotor assembly according to claim 2, characterised in that the fan (30) is of folded sheet metal and that the fan (30) comprises a second plate (34) positioned on the plate (31) and bearing the blades (32).
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15. Rotor assembly according to claim 14, characterised in that one of the plate (31) and second plate (34) comprise at least one sealing part (311).
16. Rotor assembly according to claim 15, characterised in that the plate (31) is positioned on the axial face (111) of the end shield (11) of the magnet wheel (10), the second plate (34) being positioned on one side of the plate (31) opposite said axial face (111).
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17. Rotor assembly according to claim 14, characterised in that the second plate (34) is attached to the axial face (111) of the end shield (11) of the magnet wheel (10), the plate (31) being positioned on one side of the second plate (34) opposite said axial face (111).
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18. Alternator or alternator-starter for an automobile vehicle, comprising a rotor assembly according to claim 1.
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